

~~Chapter Submission: Green finance and sustainability-~~

~~Chapter submission for “Green finance and sustainability; Environmentally-Aware Business Models and Technologies”~~

Alternatives to the global financial sector: Local Complementary currencies, LETS and Time backed currencies

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Keywords: Complementary currencies, Timebanks, LETs

Abstract

This chapter explores complementary currencies and exchange systems and how they can provide some stability and competition to the vulnerability of the financial markets. The social economy, or 3rd sector, already plays a significant part in many societies. This is becoming more so as many governments and nations are facing decades of debt inevitably resulting in cut backs in key social and health services. In addition, the existing formal economic activity does not capture, value or support the full range of social and economic interaction within a nation. The chapter examines timebank systems, a particular type of complementary currencies and exchange system, and provides guidance on issues to consider in develop them. One of the finding from the evaluation is that as the number of people in the timebank system increases then more formality is needed to moderate the system and reduce potential for misuse.

Introduction

The current turbulence within the financial sector raises issues for long-term stability and the corresponding wider impact across the economy: There are clearly systemic weaknesses in the financial sector that have been growing over the last few decades. During this period the prime focus of attention in the banking sector has been on very large and quick flows of markets and money exchanges - casino banking, effectively making money from money (or commoditizing money). A truly vast amount of ‘virtual’ money was generated on the stock markets, currency exchanges, futures and derivatives markets and short selling. Yet at the same time the actual productive economy consisting of supplies of raw material, man-power based services and finished products saw only modest increases. This fostered the impression that the banking sector was becoming decoupled from the real economy. In addition the tsunami towards globalization has resulted in a focus in business and government policy

aimed at multinational corporations and global markets. Consequently the result of these trends has been that local business, community and local interaction have often been at a disadvantage compared to big multinationals and 'big money'.

As the systemic weaknesses in the financial sector intensified over the last few decades, at the same time there has been a quite social revolution towards sustainable living, 'triple bottom line' economics thinking and interest in complementary money and exchange schemes. Perhaps the seemingly decoupling of the banking sector from the real economy has helped to hasten interest in these schemes. The general concern over wider issues such as the environment, global warming and the need for sustainable living have also likely increased interest in possible alternatives to the traditional banking sector view of the economy. Either way there is clearly an interest and given the weaknesses that persist in the traditional banking sector view of the world there is a need for real alternatives to the banking sector. This chapter addresses that need by examining some alternative schemes and complementary currencies that can support local interaction. The chapter particularly focuses on timebank type activity or time-backed currency systems, since these seem to offer much potential to encourage interaction at a local level. The chapter also provides a classification of timebank systems and guidance on setting systems up. The aim of this chapter is to show the possibility of having complementary systems to that of the dominant (and flawed) financial system.

First the chapter looks at non-banks, which mainly consists of the large retail organisations and technology organisations. Then the chapter examines some of the background to the concepts of Money and uses this to explore Local Exchange and Transfer Schemes (LETS), complementary currencies and timebank schemes.

Non-banks and Their Role in the Banking Sector

The banking sector seems to be in a very dominant position controlling markets and dictating the direction of innovation in the financial sector. However, this dominance may not be as assured as first thought: Non-banks are playing an increasingly significant role in the financial world and are involved in all aspects of financial systems (Mouatt and Adams 2010, Adams and Mouatt 2010). For instance, Bradford et al (2002) examined the roles that non-banks play in payment activity and identified that:-

- Non-banks are involved in a myriad of activities and roles, both in traditional and emerging payments types;
- Non-bank business relationships with banks and other participants in the payments systems are often highly complex and interrelated;
- Non-banks are rarely directly involved in settlement activities and, hence, appear to be associated with limited settlement and systemic risk;
- Both non-banks and banks appear to be increasingly susceptible to operational risk factors.

Similarly a study by the European Central Bank and Federal Reserve Bank of Kansas City (ECB & FRBK 2007) shows the growing importance, and influence of non-banks, across the banking sector: "Retail payments systems throughout the world are undergoing fundamental change. Traditional paper-based forms of payment are giving way to electronic forms of

payment. Technology advances are making possible new front-end payment instruments and new back-end processing methods. New products, business models, new markets, and new alliances are an everyday occurrence. ... One key element of this new environment is the increased importance of non-banks in the payment system. Non-banks are making their presence felt at all stages of the payments chain. At this time, non-banks appear most prominent in the United States, but they are prominent in many European countries as well. And, most importantly, their presence appears to be increasing in virtually all countries.” (ECB and FRBKC 2007, p45)

One significant area of non-banking influence and activity has come from the retail sector. Indeed, several of the large retailer chains have diversified into financial services resulting in significant competition that is challenging banks in their own core markets (Welch and Worthington 2007). Competition from the retailer chains pose a significant threat to the financial sector's control of 'retail banking' (i.e. handling deposits and transaction in the real economy): Retailers have strong brands and are responsive to customer needs – including financial. However, as Welch and Worthington identified, so far retailers have adopted a selective approach to the provision of financial services and do not cover the whole range of financial services offered by banks. Of course, by adopting a selective approach the large retail companies can cherry-pick the most lucrative services or the best-fit services to their existing market space (such as credit cards tied in with purchasing reward schemes). In addition, retail companies can also offer financial services not well covered by the traditional banking players, such as community banking and insurance. In the United States, for instance, community banking and out-reach banking provides access to financial services for people with very low income. A variety of different types of corporations are acting as community and out-reach banks:-

“The Independent Community Bankers of America, the nation’s voice for community banks, represents nearly 5,000 community banks of all sizes and charter types throughout the United States and is dedicated exclusively to representing the interests of the community banking industry and the communities and customers we serve.

With nearly 5,000 members, representing more than 20,000 locations nationwide and employing nearly 300,000 Americans, ICBA members hold \$1 trillion in assets, \$800 billion in deposits, and \$700 billion in loans to consumers, small businesses and the agricultural community.” (from <http://www.icba.org/>)

In addition, retailer corporations have strong relationships with their customers, often providing ranges of services that tie-in customers with reward schemes and interlocking services. Customers regularly visit their preferred retailers for weekly food shopping which will likely include shopping for a variety of other goods such as medicines, mobile phones, kitchen items, white goods, electronics goods, books, games, CDs, DVDs, stationary and a variety of services such as credit cards, or pet and car insurance. In contrast, the trend in banking has been towards 'distance-banking' (Mouatt and Adams 2010): this is the realm of online accounts, ATM machines and closing of high street branches, indeed customers rarely get to see banking personnel. The large retailer chains are encroaching into the core markets of the banking sector at the same time as having a very firm and growing foundation in their own markets.

Further, many of the innovations in the banking and financial sector (such as ATMs, online banking, call-centres and general ‘distancing of the customer’) have been driven mostly by

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cost saving, whereas innovations from the retail sector have been mostly driven by developing new services (Adams and Mouatt 2010). Banks' business activity is mostly a mono-system revolving almost exclusively around financial services (Mouatt and Adams 2010). Business activity for retail chains is typically more diverse involving a wider range of services. This diversification has been driven by fierce competition in the retail sector. The result being that if there are problems in the financial services markets, then banks are likely to be more heavily affected than retailers who can rely on their sustainable and diverse retailing activity to offset financial instabilities.

In addition, in comparison to the high risk 'casino banking' dominating the banking sector, retailer corporations mostly practice a low-risk approach to business activity. The market space is based on a low-risk activity since whatever the economic climate people will still be purchasing their weekly food and household goods. This low-risk approach of retailers extends to other aspects of the supply chain relationship. Subramani (2004) identified, for instance, that the supplier-retailer relationships is complex and uneven, especially where there are technology-dominated supply chains, since a small supplier will need relationship-specific investments and are effectively locked-in to a retailer. The larger retailers transfer much of the risk to their wider supplier network. They even transfer some of the risk to customers since large retailers often receive payment from customers for the popular daily and weekly shopping items often before the suppliers have been paid for the very same goods. Large retailers are likely to operate a monthly invoice and payment cycle where suppliers get paid on delivery of good over the previous month. Consequently a small bakery or dairy supplying fresh produce will have to wait potentially weeks for payment, yet the large food retailers would have received payments from customers for the bread and milk items on the day.

A study from the Centre for the Study of Financial Innovation (a London based think-tank) into the "non-bank" phenomenon within Europe and how this would impact the retail banking sector concluded that the new entrant retail players did pose a serious threat for the longer term, although the market-share impact made by retailers into the financial sector was currently small (Lascelles 1999). It seems that the retail sector is poised and well placed to make an impact on the retail banking sector and its financial systems. Further competition from the retail sector may require extra stimulus, such as increased competition. However, often much of the stimulus for change has come from technological innovations, as well as technology based organisations. A significant part of the non-bank competition to the banking sector is coming from technology based companies.

Edward De Bono (1993), while at the Centre for the Study of Financial Innovation, raised the concept of an *asset-backed* 'IBM Dollar' or large corporation currency that is directly linked to the commodity being produced. David Boyle (2000) also suggested something similar to the concept of corporate money, in the form of new money systems for large urban centres such as London. This would effectively form 'regional corporation' money and cover significant expenditure items within the region, such as transport and/or local economic exchanges. Examples already exist with the Oyster card system in London and the Octopus cards in Hong Kong, which can also be used to purchase non-transport items. Similar systems have been applied in other cities around the world such as in Holland and Dubai (Octopus 2007).

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An example of a significant complementary currency system operated by non-bank corporations is the 'Wir' system in Switzerland: "Wir, an acronym for Wirtschaftsring – 'economic circle' Europe's oldest bartering operation, is specifically aimed at smaller companies, and is now so widespread that it amounts to a virtual currency in parallel to the Swiss franc. Wir was started in 1934 by two followers of the economist Silvio Gesell (admired by Keynes), who had urged the creation of negative interest-rate currencies. By 1993, it had a turnover of £12 billion and 65,000 corporate members." (Boyle 2000, p14).

A town, city or local region can have enough social participation and economic activity to generate its own complementary or dual currency that competes with the existing formal currency and financial system. This is not a new phenomenon, indeed in the time leading up to and during the Industrial Revolution there were many local token-coin systems in operation across England (Dalton and Hamer 1977). For instance in Chichester, a small city in the South of England, there was a variety of token coins used by different tradesmen in the 17th century and the Chichester penny and halfpenny in the 18th century (Steer 1960).

The use of some token exchange system may also be used for dispersed groups of people connected up over the Internet. For instance, the example of Microsoft points used for interaction between game players on the Xbox, or the virtual 'Farm Coins' used in the Farm Ville game popular on the Facebook social networking site (e.g. see <http://www.squidoo.com/FarmVille-getcoinsinFarmVille><http://www.squidoo.com/FarmVille-getcoinsinFarmVille>, accessed May 2010).

Similar token exchange systems operate in the retail and corporate world. For instance, a host of vouchers are used for books, music, groceries and travel (e.g. Airmiles). Some of these are direct representations of existing currency – such as the interesting collaboration of 'vouchers' used across 4000+ independent retail outlets in Ireland, the One4all® Gift Voucher' (see <http://www.one4all.ie/><http://www.one4all.ie/>). Other voucher systems offer wider exchanges, such as the food retailers in the UK, including Tesco Clubcard points and the Nectar points system (see www.nectar.comwww.nectar.com) used by a network of retailers. Such loyalty vouchers can be exchanged for items more than the money equivalent of the vouchers – for instance, the Tesco Clubcard points can be exchanged for up to 4 times the money value of the points (see <http://www.tesco.com/clubcard/deals/><http://www.tesco.com/clubcard/deals/>). These innovations in forms of money are driven by competition within the retail sectors and supported by technological innovations.

ICT innovations are continuing to impact the banking and financial services sector. For instance, Towell *et al* (2007) shows that the move towards Web 2.0 technologies across the Internet is going to have a substantial impact on the range and type of financial services that will emerge. It will also facilitate more new entrants to the financial services market place, and the new entrant are likely to be dominated by technology companies, traditional retailers and virtual retailers rather than the more traditional banking institutions.

To fully appreciate the impact and potential of non-banking entities to compete as alternative monetary and exchange systems, it will be helpful to examine what money actually *is*. This will be covered in the next section.

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Background to Money concepts

At a basic level, money functions as a means of exchange, a unit (and means) of account, a store of value and a standard for deferred payment (Mouatt and Adams 2010). Money also has other functions and attributes, as Davies notes (p.27) money provides a framework for the market allocation system (prices) and also the existence of monetary factors arguably provide an instigative impact on the productive economy in general. At a macro level money acts as the oil for an economy enabling exchanges to take place. Of course there are other features of money including cultural and psychological factors, and clearly a national currency is a source of national pride and identity.

All sorts of things have been historically used as money, for instance Davies (1994) provides an alphabetical list of some of the more primitive examples of money, including: “Amber, beads, cowries (shells), drums, eggs, feathers, gongs, hoes, ivory, jade, kettles, leather, mats, nails, oxen, pigs, quartz, rice, salt, thimbles, umiacs, vodka, wampum, yarns, and zappozats” (Davies 1994, p27). Wampums are shells or beads used by the North American Indians as money. Zappozats are apparently decorated axes. Using a precious metal, like gold or silver, or a rare and precious item has provided a good base for money, and the weighing and assaying functions have usually been performed by the state. The relative scarcity and preciousness of the items embeds ‘value’ into those items (Adams and Mouatt 2010).

The channels of money transaction, in corporate and the traditional banking sector, are increasingly technology-based. Electronic digits have virtually replaced coins and paper. As Niebyl (1946) identifies in his monetary discourse of the classical economic period, empirical work on money has to be considered within the specific historical context of the time. The attributes of trust and value that was embedded in precious metal currency will be different to the trust and value in new forms of money of electronic money. Any item that is accepted as a value of exchange (and possibly fulfils some of the other functions of money, as above) can be use as money: So Microsoft points can be used for exchange of online games components, or within the 3D virtual world of Second Life they can use Lindens to exchange virtual items produced within Second Life (see <http://secondlife.com/shop/>).

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A Social Revolution and New Economics

The ‘formal’ economy does not capture the full range of economic or social interaction within a nation. The 3rd economy or 3rd sector – consisting of charities, voluntary organisations, not-for profit organisations and social enterprises - also operates across a society, and arguably is a measure of the health and maturity of a society. A society that has strong social and support structures along with good community spirit and engagement is likely to have a healthy and well balanced society.

The 3rd sector is a significant part of the economy for most nations. In traditional currency terms (\$’s, Euro’s, £’s etc) if one collated together the amount of time and effort that people contribute to charities, voluntary organisations, social enterprises as well as individual careers and contributors across a society then this would be a very significant number. Kendall and Knapp’s (2000) study found that in 1995 in the UK the 3rd sector accounted for 1.5 million

full-time equivalent paid workers, which effectively translated to over 6% of the economic activity in the UK at the time. The 3rd sector as an equivalent proportion of GDP varies from nation to nation, but typically can be in the range of 3% to 10%.

The level of individual and unstructured contribution within the 3rd sector is difficult to calculate, however it is likely to be a significant, if not the most significant part of the sector: “Of course, there are social entrepreneurs, managers, employees, volunteers, users and clients in the third sector, but there is something perhaps even more basic at work: self-organisation – the capacity of citizens to organise around shared interests and needs outside the market and without being mandated to do so by the state. This is the civil society aspect of the third sector: the sum of private action in the public interest, serving the public good.” (Anheier 2002, p8)

The 3rd sector has a direct impact on the formal public and private sectors since it keeps people out of hospital and formal support services (e.g. see <http://www.thirdsector.co.uk>). For instance if the very older or disabled people are able to be cared for and supported in own homes then this will relieve overstretched hospital and social support systems. Indeed, within most nations the formal public sector would not be able to cope if it had to do all the extra work that the 3rd sector does. Bridge’s (2008) work on the social economy and 3rd sector identifies the wider political and policy context and the importance of that the wider 3rd sector. There is a tremendous amount of social capital across a nation that is contributing to the wellbeing of the society – not just in providing support complementing the public sector, but also in developing community, contributing to the environment and developing general wellbeing within society.

There has been considerable interest in developing the wider 3rd sector given the changing demographics, particularly the growing older population. People are living longer and will need more care and support during their lifetime. Hard pressed public sector support mechanisms will not be able to cope at the current levels of funding when the proportion of old and very old people increase significantly. Having a strong 3rd sector is seen as one of the main safety nets for future generations in many nations.

It is not just the impact on health and social care that is of interest. The New Economics Foundation (NEF) (see <http://www.neweconomics.org/>) is an independent think-and-do-tank that tries to capture the economics of things that matter or ‘real economic well-being’. For instance, one of the key approaches they take is a ‘triple bottom line’ analysis to investments where investment is evaluated by their longer-term social, environmental and economic returns. Arguably the triple ‘bottom line approach’ calculates the full cost, and the full benefits, of investments and human activity. The NEF apply a range of ‘triple bottom line’ evaluations across the public, private and third sectors. The NEF was founded in 1986 by the leaders of ‘The Other Economic Summit’ (TOES) which forced issues such as international debt onto the agenda of the G7 and G8 summits: “TOES promotes economics which incorporate the sustainable use of natural resources and the productive engagement of all people in the development of their communities and societies. It addresses the disarray in conventional economics by helping to bring such economic thinking into line with late twentieth century realities.” (<http://www.toes-usa.org/>)

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The social economy and 3rd sector are a significant part of a society in both relation to the proportion of GDP and in the contribution to the wellbeing of that society. There has been a growing interest in the wider non-formal economies, and from many stances – long-term healthcare and support, the environment or the long-term wellbeing of a nation. This is an area that is set to be increasingly more important in the future. There is a growing interest in is new economics that along with traditional economic activity captures the wider and long term social economy, the environment, and the economy of things that are important for human communities. However, much of the existing formal economic activity does not capture or support the full range of economic and social interaction within a nation. This is where complementary currencies, Local Exchange and Transfer Schemes (LETS) and Timebank systems operate. The next section explores a range of complementary currencies and exchange systems that attempt to fill this gap.

Complementary Currencies and LETS

There are various dual currency developments in the world today. Venezuela, for instance, has been going through a period of record high inflation, and currency devaluation, and is preparing to introduce a *de facto* dual currency system to develop some stability in the economy (Mander 2008). In the global economy, the dollar or increasingly now the Euro (or any stable currency), is often used as a dual currency alternative to local (relatively unstable) currencies. Having a dual currency is not just about stability. Multiple currencies are not new phenomena and, some argue they perform a specific set of functions that substantially improve the quality of economic and social life. Bernard Lietaer, a recognized expert on complementary currencies, has provided convincing evidence from Bali where a successful dual currency operates (Lietaer, 2001). As Jacobs has argued (Jacobs 2003, p29): “we need a range of currencies, time banks to underpin the social economy, local currencies to keep money and resources circulating locally and regional currencies to provide low cost finance to small business. It is also argued we need a range of experimental (asset based – *our emphasis*) currencies based on anything from renewable energy to the value of local vegetables” (Douthwaite 2003, p165).

There is also a community aspect to sharing a dual currency. Ownership (with property rights to control) of a currency, or dual forms of money, can develop and maintain a sense of community, even between people dispersed over large areas such as with rural communities in Australia (Taylor and Marshall 2002). The community aspect is often found in (social) monetary contexts, notably in Local Exchange and Trading Systems (LETS).

David Boyle’s books ‘the Money Changers’ and ‘The little money book’ give several examples of successful LETS schemes (Boyle 2002, 2003), including Edgar Cahn’s Time Dollars (Boyle 2002, p241) and a variety of LETS systems evolving from Michael Linton’s mutual credit system called ‘green dollars’ (Boyle 2002, p262). Many of the LETS are based around towns, cities and their distinct communities. An example of a local exchange scheme over the internet is the ‘Geek Credit’ described as “a digital complementary currency for internet. It is decentralized, secure, interest and demurrage free and is backed by mutual credit (time). Since there is no central issuing and control authority, it is a true peer-to-peer currency” (GNA).

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In the USA much of the momentum towards developing local currencies and LETS schemes has come from the E.F. Schumacher Society set up in the 1980's (see. <http://www.localcurrency.org>~~http://www.localcurrency.org~~). Several innovative example flourish and are seen as a way to develop sustainable regional economies. In 2004 the E.F. Schumacher Society hosted the 'The Local Currencies in the 21st Century' conference which brought together many examples of LETS, local currency systems and timebanks used throughout the world alongside national currencies.

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Many organizations, and even individual people, have created their own money (Boyle 2003). In Europe the EU Electronic Money directive gave member states guidelines to develop legislation for corporations to develop their own electronic monies. In the UK this has been translated in to the governance of electronic money issue, by the Financial Services Association (FSA) who issue licenses for corporations that wish to issue their own money. The licenses are granted under tight rules and monitoring activity. Interestingly, Paypal was an early example of a licensee under the new EU scheme, pre-dating the issuing of licenses to many of the telecoms companies. An amendment to the directive from the EU, directive 2007/64/EC, moves further to encourage competition in financial services and e-payment markets. Fundamentally, the amended directive encourages variation and competition, specifically incorporating supermarkets, retailers and other entities, and to encourage low value or micro payment mechanisms.

Time Bank Type Systems

The history of Time Banks and time Dollars is tie up with Professor Edgar S. Cahn, as the US Timebank website details: "he dreamed up Time Dollars as a new currency to provide a solution to massive cuts in government spending on social welfare. If there was not going to be enough of the old money to fix all the problems facing our country and our society, Edgar reasoned, why not make a new kind of money to pay people for what needs to be done? Time Dollars value everyone's contributions equally. One hour equals one service credit. Seven years later (in 1987) at the London School of Economics, Edgar developed his theoretical explanation for why the currency should work. He came back to the US and started putting service credits (not yet called Time Dollars) into operation." (<http://www.timebanks.org/history-structure.htm>~~http://www.timebanks.org/history-structure.htm~~).

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There are examples of timebanks around the globe – including Canada, Chile, Curacao, Dominican Republic, Israel, Italy, Japan, New Zealand, Portugal, Spain, South Korea, Taiwan, United Kingdom (<http://www.timebanks.org/international.htm>~~http://www.timebanks.org/international.htm~~); however the US and the UK have probably seen the most significant numbers of timebanks as well as the number of people involved in them.

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Timebank type systems aim to link people locally to share their time and skills. One of the main themes is that one hour of time of a person's skills is equal to one hour of another person's skills. There are many schemes and different types of schemes running both in the US, UK and elsewhere, though not all of them are successful or gaining critical mass (yet). "Time Banking UK" is the national umbrella charity that links and supports time bank systems across the UK, though a time bank system does not have to be part of the scheme. The latest statistics for time banks in the UK are:-

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- 110 active time banks
- 99 developing time banks
- 3 neighbourhood time banks
- 11420 participants actively involved in time banking
- 945504 hours traded between participants to date

(from http://www.timebanks.co.uk/cgi-bin/hours_display.pl, accessed 25/09/09)

In the Timebanks USA is the national umbrella organisation that links and supports time bank systems across the US. Their mission is to “expand a movement that develops, supports, and promotes a network of Time Banks that rebuild community, and reforms economic and social systems, policies and practices so that they empower human beings to contribute to the well-being of each other through reciprocity.” (see

<http://www.timebanks.org/>). A directory of timebanks in the USA can be found at

<http://www.timebanks.org/directory.htm#MA>.

At the start of the TimeBanks USA 2009 conference they capture the spirit of the timebank movement: “In more than 40 states and 32 countries, TimeBanking is a force for good and source of hope. It works because people create networks of support where everyone gives and receives. They activate untapped skills, build new capacities and uncover hidden talents to create a whole new sense of community. TimeBanks bridge the gaps between government and citizens, promoting justice and creating safe, healthy neighborhoods.”

(<http://tbusa.org/>)

Some of the main differences between Time banks and LETS are discussed by Time Bank UK, these include:

- “Time banks value everyone’s time equally. You give an hour and you get an hour back - no matter what service is required or skill needed to deliver it. This exchange rate never changes. LETS schemes sometimes work this way but each LETS group has its own way of deciding how much their currency is worth. In many LETS groups, one LETS credit is worth one pound sterling which enables them to relate to market values.
- Time banks aim to work alongside the mainstream agencies like Health and Social Services, or local authorities, whilst LETS work more closely towards building an alternative economy. More recently, however, as part of their anti-poverty initiatives, some local authorities are now working with LETS schemes. Both Time banks and LETS help strengthen a sense of community spirit and allow individuals to discover, develop and value their own abilities.
- Time banks match people using a central broker. LETS provide a directory of members who contact each other directly to get the service they need.
- Time banks usually have at least one paid member of staff. Most LETS schemes work on a purely voluntary basis.
- Time banks have a local base, office or shop where participants can call in for a chat, get some advice, etc. LETS usually work without a base and use the telephone, a directory and local get-togethers as contact points.
- Time banks have been given a Benefits Disregard by the Government. At present, LETS have not been awarded this disregard - members on benefits have to declare

their LETS earnings. LETS schemes, with the backing of several government ministers, are trying to get this position changed.” (from <http://www.timebanking.org/faq.html#Q7?>, accessed 25/09/09)

Table 1 collates together some of the main attributes of different type of timebank systems. As the size of the timebank group increase so too does the need for more formal systems. When there are small numbers of people involved, say in a local baby sitting circle, then everyone knows each other and they can keep communal record between themselves of who has used up their time-hours and who has a stock left. They could also use an informal time voucher such as a matchstick or a hand written I.O.U. Fairness and trust can be maintained and controlled within the small group. If there is a problem then the group can quickly disband, and possibly reform with just the trusted or willing members.

As the number of people in the timebank system increases then the vouchers will need to be more formal - they need to be recognised as a timebank voucher among the wider and growing number of people involved in the system. There will also need to be more formal recognising of the time hours - i.e. keeping a record of who has used the time-hours and who has a stock of time-hours left.

There are potential problems and areas for misuse with timebank systems including:-

Hoarding - If a few people start hoarding the timebank vouchers then the system starts to slow down as there will not be enough vouchers to stimulate exchanges. This can be overcome by incentives to stop hoarding, such as having a time limit or use by/exchange date, or possibly having a maximum number of timebank vouchers that can be hoarded by individuals (possibly a realistic option for central controlled systems). A further way to address hoard is some form of 'quantitative easing' or just distributing more timebank vouchers. Indeed, one of the issues of any timebank system is how many timebank vouchers each participant should start with. If the number is too small then it might limit the flow of time exchanges; if the number is too high then it may lessen the incentive to exchange timebank tokens.

Cheap labour misuse - The timebank vouchers could be viewed by some as a source of cheap labour. Having a (high) subscription may contribute to this view (i.e. participants have 'paid' for a number of timebank hours) as well as if participants start off with several timebank vouchers. This may need 'policing' or moderating to limit misuse in this area: moderating may be easier to do with more full central systems where there is a moderating or monitoring team. Small groups may also self-moderate such behaviour (i.e. with a small group the member would know who is not being fair in the time exchanges and can then not do exchanges with those people accordingly).

Exchange for money misuse - Similar to viewing the system as a means for cheap labour there may be a potential misuse around offering money or products for time spend. This goes against the concept of timebank systems (i.e. it is supposed to be an exchange of people's time). It may also encroach upon employment regulations and the formal economy (and so attract tax etc). The *purist view* is that no exchange of time-for money or products is acceptable. The *pragmatist view* would be that there may be 'exceptional' times when some monetary or produce exchange makes sense.

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For instance, if there is a time voucher exchange to cover apple picking. The person with the apple trees and the apple picker may decide on an exchange that involves a mix of timebank vouchers and apples. Similarly, if someone has a situation that calls for the use of lots of timebank hours (say a large amount of garden work) but has not been able to accumulate enough timebank hours (possibly because of any hoarding rules) then some supplement money or other produce exchange (say some of the apples or apple chutney) may be appropriate. If there is regular exchange of hours for money in a timebank system then this would be classed as an employment system and will need to be treated accordingly (such as being compliant with employment and tax legislation).

Inappropriate exchanges - The exchanges have to be legal and acceptable within the timebank community. Particular care needs to be taken when dealing with venerable people, such as the young and old. This may be easier to do with centrally moderated and controlled timebank systems, though it would be difficult to guarantee no misuse. This highlights the need for formal rules and use policies that participants have to sign up to, especially for larger timebank groups. There should also be mechanisms to exclude people engaged in inappropriate exchanges.

Moderation / Control	Central-Full high	Central-moderated medium-high	Central-Self managed medium-low	Individual high to low (depending on group cohesion)
Level of formality	high	medium	medium-low	low
Running costs / Overhead	high	medium	medium-low	low
Size of timebank group	large	large-medium	medium	small

Table: Variation of Timebank systems

Tony Warne and Keith Lawrence, from the University of Salford, evaluated the 'The Salford Time Banking' scheme and compared it to other schemes (see http://www.timebanking.org/documents/Time-Banks-Literature/Time-Banking_evaluation_Salford_Time_Bank.doc http://www.timebanking.org/documents/Time-Banks-Literature/Time_Banking_evaluation_Salford_Time_Bank.doc).

They identify several issues such as achieving critical mass, trust within the membership in order to increase activity (i.e. between individuals at a personal level, and in a members ability to perform a task competently) and for the Salford example they identify that an active coordinator would be required and consequently would need funding (either self funding or from appropriate local public agencies). Warne and Lawrence also identify a selection of good reference material to provide background to a variety of Time Bank schemes and corresponding issues, including Young (1997) and Seyfang (2003, 2004) work.

The core principles of timebank systems are to encourage local exchange and community. It operates as a complementary system to the formal economy and does not replace or compete with the formal economy. There are several groups that would particularly benefit from

participation in a timebank system, such as time-rich people like retired people and unemployed (or not fully employed). Even if someone is unemployed and actively looking for work they can make a valuable contribution to a timebank system. While doing so they can keep active, develop skills and make a contribution to the local community. The same would be true for retired people. This ties in very much with Cain's view of 'no throw away people': Every one has something they can contribute to the community.

Equally though, the fully employed can benefit from both the time-rich contributors as well as contributing their own time in areas that are particularly of interest to them. For instance a car mechanic, accountant, or any one else can contribute his or her non-professional skills in painting, gardening, reading or anything else that they are interested in or enjoy. It may also be an opportunity to give something back to the community or participate in the community. Large cities can be very lonely places: Given the mobility in the global workforce it can often be the case that mobile and semi-transient workers do not know their neighbours. Participating in a timebank system will enable people to be activity involved within their community.

A successful timebank system may not need to operate indefinitely; indeed, a timebank system may run very successfully for a fixed or limited period of time to meet the needs of a local community at that time. In addition, the duration of a timebank may be affected by the participation and support of local champions or support agencies. Equally, a timebank system may split up and reform, possibly at a later date, to meet local needs within the community as they emerge. There are clearly a range of different timebank schemes, as too LETS schemes, and they provide the bedrock of many complementary currencies and exchange systems.

Conclusion: A Social Revolution, a Social Economy

A complementary currency approach, based on non-banking activity, seems to offer realistic competition to the vulnerability of the financial markets. In addition, the social economy and 3rd sector are already a significant part of many societies and given the changes in demographics are set to be more important in future years. In addition, given recessions around the world following the 2008 collapse of the financial markets, many governments and nations are facing decades of debt inevitably resulting in cut backs in key social and health services. During this period societies will need to have strong social economies and 3rd sectors. At the same time there are pressing environmental needs (such as global warming) and corresponding interest in sustainability within economies.

The existing formal economic activity does not capture, value or support the full range of social and economic interaction within a nation, the environment or the long-term wellbeing of a nation. These require new thinking which draws upon the development of complementary currencies, Local Exchange and Transfer Schemes (LETS) and timebank systems. In addition, providing support for more sustainable economic activity, there are clear benefits covering the development strong social and community aspects at the local level.

This chapter has identified some of the systemic weaknesses within the existing formal banking sector and corresponding traditional economics. On one level the banking sector

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generates huge volumes of virtual wealth (through the 'casino' type banking) and wields significant power in shaping global markets and setting or currency rates. On another level the bedrock of the banking sector – retail banking where deposits are kept and the real economy transactions takes place – the banking sector looks less solid. Competition from the non-banks, including significant competition from large retail companies and technology companies, is already considerable and set to grow. Innovation in ICT is driving further competitive change and the banking sector is not well placed to be market leaders in this change. This chapter has also provided an evaluation on timebank systems and guidance on issues to consider in develop them. A key finding from the evaluation is that as the number of people in the timebank system increases then more formality is needed to moderate the system and reduce potential for misuse. One part of this formality is the need for a token, reward or voucher to formally recognise people's contribution to the timebank system as well as a mechanism of account among the people involved in the system.

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